

Surtain Weed Control and Crop Safety

Janesville, WI 2023

Trial Information

Trial Sponsor(s): BASF

Objective: Evaluate weed control and crop safety of PRE and POST applications of ***Surtain**

Crop: Corn

Variety: DKC50-87 RIB

Weed species (pressure): giant ragweed (high-very high)

Herbicide Application(s): PRE – 5/4

For the full report see trial #23-ROK-CN07 in the [2023 Wisconsin Weed Science Research Report](#)

***Surtain** is a new corn herbicide pre-mix, developed by BASF, containing encapsulated saflufenacil (Sharpen) and pyroxasulfone (Zidua). As of publication, EPA registration is still pending but is expected in 2024.



Cropping Systems Weed Science
UNIVERSITY OF WISCONSIN-MADISON

BASF

We create chemistry

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Trt #	Herbicide (rate acre ⁻¹)	Injury ^d (%)		Giant Ragweed (%)				Yield ^b bu acre ⁻¹
		6/2	6/8	5/25	6/2	6/8	6/27	
1	Check Untreated	0	0	0	0	0	0	--
One-Pass – PRE (5/4)								
2	Acuron (1.5 qt)	0	0	82	70	69	30	--
3	Degree XTRA (2 qt)	0	0	53	45	24	16	--
4	Trivolt SC (12 fl oz)	0	0	70	64	65	31	--
5	Surtain (14 fl oz)	0	0	80	57	42	18	--
7	Surtain (17 fl oz)	0	0	81	63	43	17	--
One-Pass – EPOST (5/25)								
9	Surtain (14 fl oz) + Clarity (8 fl oz) + atrazine (2 pt) + Roundup PM3 (30 fl oz) + 1% COC + AMS ^c	5.5	4.8	0	86	87	83	165 -
Two-Pass – PRE (5/4) <i>fb</i> POST (6/2)								
10	Surtain (14 fl oz) <i>fb</i> Armezon PRO (16 fl oz) + atrazine (1 pt) + Roundup PM3 (30 fl oz) + 1% COC + AMS ^c	0	8.0	81	64	90	86	167 -
11	Surtain (14 fl oz) <i>fb</i> Status (5 oz) + Zidua SC (2.5 fl oz) + Roundup PM3 (30 fl oz) + 0.25% NIS + AMS ^c	0	2.5	83	63	100	90	177 -
		LSD ($\alpha=0.10$)	0.3	0.6	5	13	14	16
		p value	<.001	<.001	<.001	0.003	<.001	<.001
								ns 0.2109

^aVisual control from 70-100% is illustrated on a color scale with green representing greater weed control values.

^bDid not take yield data from PRE only treatments as there was very little corn in these plots due to heavy giant ragweed competition.

^cDry AMS applied at 8.5 lb/100 gal

^dCorn injury = % leaf necrosis (burn)

Sustain Weed Control and Crop Safety

Janesville, WI 2023

Plot pictures taken on 5/25
21 days after the PRE application

The number in the upper right-hand corner is the average %
giant ragweed control of 4 replications

21 days after PRE (5/25)

Untreated Check

0%



21 days after PRE (5/25)

PRE: 1.5 qt Acuron

82%



**21 days after PRE (5/25)
PRE: 2 qt Degree XTRA**

53%



21 days after PRE (5/25)

PRE: 12 fl oz Trivolt SC

70%



21 days after PRE (5/25)

PRE: 14 fl oz Surtain

81%



**21 days after PRE (5/25)
PRE: 17 fl oz Surtain**

81%



Surtain Weed Control and Crop Safety

Janesville, WI 2023

Plot pictures taken on 6/2

29 days after the PRE application

8 days after the EPOST application

The day of the POST application

The number in the upper right-hand corner is the average %
giant ragweed control of 4 replications

**29 days after PRE (6/2)
Untreated Check**

0%



29 days after PRE (6/2)
PRE: 1.5 qt Acuron

70%



**29 days after PRE (6/2)
PRE: 2 qt Degree XTRA**

45%



29 days after PRE (6/2)
PRE: 12 fl oz Trivolt SC

64%



29 days after PRE (6/2)
PRE: 14 fl oz Sustain

61%



**29 days after PRE (6/2)
PRE: 17 fl oz Surtain**

63%



8 days after EPOST (6/2)

EPOST: 14 oz Sustain + 8 oz Clarity + 2 pt ATZ + 30 oz RU PM3 + COC + AMS

86%



8 days after EPOST (6/2)

EPOST: 14 oz Sustain + 8 oz Clarity + 2 pt ATZ + 30 oz RU PM3 + COC + AMS



Surtain Weed Control and Crop Safety

Janesville, WI 2023

Plot pictures taken on 6/8

35 days after the PRE application

14 days after the EPOST application

6 days after the POST application

The number in the upper right-hand corner is the average %
giant ragweed control of 4 replications

35 days after PRE (6/8)
Untreated Check

0%



35 days after PRE (6/8)
PRE: 1.5 qt Acuron

69%



**35 days after PRE (6/8)
PRE: 2 qt Degree XTRA**

24%



35 days after PRE (6/8)
PRE: 12 fl oz Trivolt SC

65%



35 days after PRE (6/8)
PRE: 14 fl oz Surtain

42%



35 days after PRE (6/8)
PRE: 17 fl oz Sustain

43%



14 days after EPOST (6/8)

EPOST: 14 oz Sustain + 8 oz Clarity + 2 pt ATZ + 30 oz RU PM3 + COC + AMS

87%



6 days after POST (6/8)

PRE: 14 fl oz Surtain *fb*

POST: 16 oz Armezon PRO + 1 pt ATZ + 30 oz Roundup PM3 + COC + AMS

90%



6 days after POST (6/8)

PRE: 14 fl oz Surtain *fb*

POST: 5 oz Status + 2.5 oz Zidua SC + 30 oz Roundup PM3 + NIS + AMS

100%



Surtain Weed Control and Crop Safety

Janesville, WI 2023

Plot pictures taken on 6/27

54 days after the PRE application

33 days after the EPOST application

25 days after the POST application

The number in the upper right-hand corner is the average %
giant ragweed control of 4 replications

54 days after PRE (6/27)

Untreated Check

0%



54 days after PRE (6/27)

PRE: 1.5 qt Acuron

30%



**54 days after PRE (6/27)
PRE: 2 qt Degree XTRA**

16%



54 days after PRE (6/27)

PRE: 12 fl oz Trivolt SC

31%



**54 days after PRE (6/27)
PRE: 14 fl oz Surtain**

18%



54 days after PRE (6/27)

PRE: 17 fl oz Surtain

17%



33 days after EPOST (6/27)

EPOST: 14 oz Sustain + 8 oz Clarity + 2 pt ATZ + 30 oz RU PM3 + COC + AMS

83%



25 days after POST (6/27)

PRE: 14 fl oz Surtain *fb*

POST: 16 oz Armezon PRO + 1 pt ATZ + 30 oz Roundup PM3 + COC + AMS

86%



25 days after POST (6/27)

PRE: 14 fl oz Surtain *fb*

POST: 5 oz Status + 2.5 oz Zidua SC + 30 oz Roundup PM3 + NIS + AMS

90%

